

LAK-175 Shoulder Widening

State Route 175 in Lake County
01-LAK-175-KP 19.06/19.36 (PM 11.84/12.03)
EA 455300



Initial Study with Proposed Negative Declaration

Prepared by the
State of California Department of Transportation

October 2005



General Information About This Document

This document is an Initial Study (IS), which examines the environmental impacts of the proposed project located in Lake County, California. It meets the requirements of the California Environmental Quality Act (CEQA) which requires the preparation of an IS when a project could have significant impacts to the environment.

This IS examines the existing environment and the impacts that could result from the project, and presents avoidance, minimization and/or mitigation measures. It will be available for public and agency review for 30 days from October 24, 2005 to November 24, 2005. It is expected that with the proposed avoidance, minimization and/or mitigation measures the project would not result in significant impacts to the environment, as documented in the Proposed Negative Declaration, which is included in this IS.

What happens next?

Following approval of this document, Caltrans may 1) give environmental approval to the proposed project, 2) undertake additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans may design and construct all or part of the project.

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**INITIAL STUDY
WITH PROPOSED
NEGATIVE DECLARATION**

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

Date of Approval

John Webb, Chief
North Region Environmental Services
California Department of Transportation

Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) is planning to construct safety improvements on State Route (SR) 175 west of Middletown in Lake County. Construction activities will consist of minor shoulder widening, drainage construction and relocation. The existing drainage ditch located adjacent to the westbound lane will be filled to grade. The project will redirect the highway drainage to a new storm drain system that will be located under the westbound shoulder. The storm drain will outlet to a new cross culvert and ditch near PM 11.8 (KP 19.12). No improvements are proposed to the highway alignment. The proposed project will require the acquisition of strips of land from up to three parcels adjacent to SR 175, resulting in a total acquisition of approximately 0.217 ac. Temporary Construction Easements (TCE's) will be needed from three parcels. The project will not result in any residential relocations. Construction is estimated to take 45 working days.

Determination

Caltrans has prepared an Initial Study for this project and following public review, has determined from this study that the project will not have a significant effect on the environment for the following reasons:

- The proposed project will have **no effect** on air quality, water quality, geology or soils, noise levels, public services, farmland, planned land use, neighborhood integrity, or social, recreational or educational facilities;
- The proposed project will not increase seismic hazards or induce growth, and does not include any hazardous waste sites;
- The proposed project will have **no significant effect** on floodplains, cultural resources, utilities, wetlands, or wildlife. To comply with the intent of Senate Resolution 17 regarding impacts to oak woodlands, Caltrans will dedicate funds toward the purchase of 0.64 acres of oak woodland habitat.

John Webb, Chief
North Region Environmental Services
California Department of Transportation

Date

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List of Abbreviated Terms

ac	Acre
AC	Asphalt concrete
ADT	Average Daily Traffic
APE	Area of Potential Effects (cultural resources)
BMP	Best management practices (water quality)
Caltrans	California Department of Transportation
CDFG	California Department of Fish & Game
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	Carbon monoxide (air quality)
dBA	Decibels (noise level measurement)
DI	Drainage Inlet
ES	Edge of shoulder
ESA	Environmentally Sensitive Area
ESA	Endangered Species Act
ETW	Edge of traveled way
FG	Finished grade
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
ft	foot/feet
HDM	Highway design manual
HP	Hinge point
HPSR	Historic property survey report
IS	Initial Study
km	kilometer(s)
KP	kilometer post
Leq	Equivalent noise level
LOS	Level of service
m	meter(s)
MBTA	Migratory Bird Treaty Act
mi	mile(s)
NAC	Noise abatement criteria
NEPA	National Environmental Policy Act
NES	Natural Environment Study (biological resources)
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
OG	Original ground
PG&E	Pacific Gas & Electric
PM	post mile
ppm	Parts per million
PRC	Public Resources Code
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan

RWQCB	Regional Water Quality Control Board
SHPO	State Historic Preservation Office
SR	State Route
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish & Wildlife Service

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) is planning to construct safety improvements on State Route (SR) 175 west of Middletown in Lake County. Construction activities would consist of minor shoulder widening, and drainage construction and relocation. The existing drainage ditch located adjacent to the westbound lane would be filled to grade. Side slopes would be 1:4 of flatter except for a 131 ft. section of highway that may have side slopes of 1:3. Open graded asphalt concrete would be placed as the final pavement surface and restriping would be needed. The project proposes to redirect the highway drainage to a new storm drain system that would be located under the westbound shoulder. The storm drain would outlet to a new cross culvert and ditch near PM 11.8 (KP 19.12). No improvements are proposed to the highway alignment. Construction is estimated to take 45 working days.

The proposed project would require the acquisition of strips of land from up to three parcels adjacent to SR 175, resulting in a total acquisition of approximately 0.217 ac. Temporary Construction Easements (TCE's) would be needed from three parcels. The project would not result in any residential relocations.

This project is programmed as a 201.020 Safety Project for the 2005 State Highway Operation and Protection Program (SHOPP) and in the 2004 Federal Transportation Improvement Program with an estimated cost of \$520, 000. District 1 has requested \$350,000 for this project in the 05/06 Fiscal Year. In addition, Federal Funds would be requested since this is a safety project over \$100,000.

1.2 Purpose and Need

State Route 175 is a rural two-lane highway in western Lake County that runs from Middletown in Lake County to Hopland in Mendocino County (See Figure 1-1). The highway alignment itself is comprised of gentle hills, flat straight-aways and narrow shoulders. The existing roadway is asphalt concrete with two lanes approximately 10 ft. wide each and shoulders that vary from 0 – 2 ft. This mountainous 2-lane highway has a posted speed limit of 55 mph.

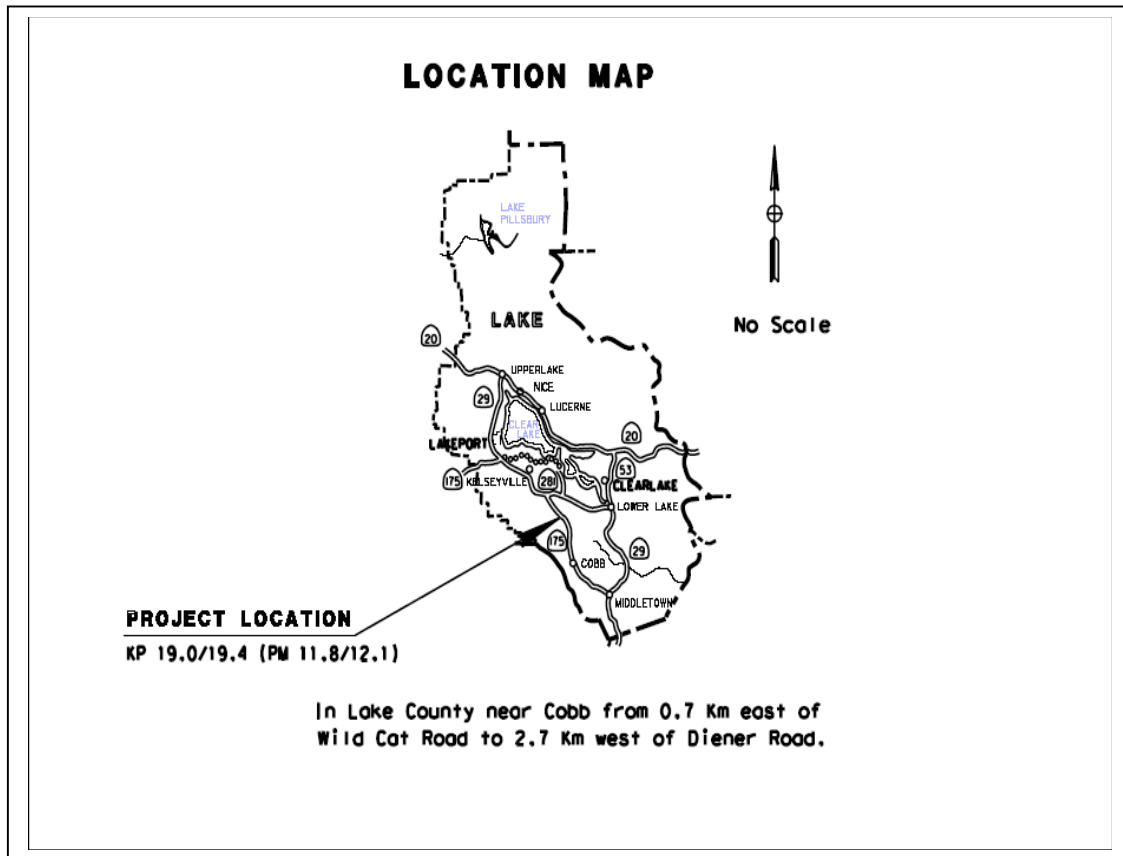
The project is situated in a rural community subdivision. Approximately 14 parcels use private driveways and 32 parcels use Diamond Dust Trail to access Route 175 within the project study limits. Local school buses use Route 175 to pick up and drop off children within the project limits. Children must cross the highway to get to the bus stops. Existing pedestrian crossing facilities include three pedestrian crossing signs.

Purpose

The purpose of the proposed project is to provide safety improvements that would reduce the frequency and severity of collisions within the project limits.

The project would provide a paved shoulder for non-motorized users. Widening the shoulder would also provide more opportunity for drivers of errant vehicles to recover. Existing fixed objects adjacent to the highway would be removed. The existing roadside ditch adjacent to the highway would be filled to grade. Side slopes would be 1:4 or flatter except for a 65 ft. section of highway that may have side slopes of 1:3. Eleven oak trees, six pine trees and one utility pole would be removed from the clear recovery zone. Open graded asphalt concrete would be placed as the final pavement surface.

Figure 1-1. Project Location



Need

This segment of SR-175 has been previously identified as a “Fatal Investigation Location.” Six collisions over a 60 month period have occurred within the project study limits. One collision resulted in a fatality, three collisions reported injuries, and two collisions were property damage only. Three of the collisions were coded as hit object types (trees, ditches, utility pole). There was also one overturn, a sideswipe and a pedestrian collision. The lane widths are 10.1ft; however, due to the narrow shoulders, proximity of trees and objects adjacent to the shoulders, residential driveways and pedestrian presence, the possibility of collisions is greatly increased. This potential for collisions is magnified during inclement weather.

Widening of the shoulder area would assist in collision reductions along this stretch of SR-175.

1.3 Alternatives

There are two proposed alternatives for this project; the “Build Alternative” and the “No-Build Alternative”.

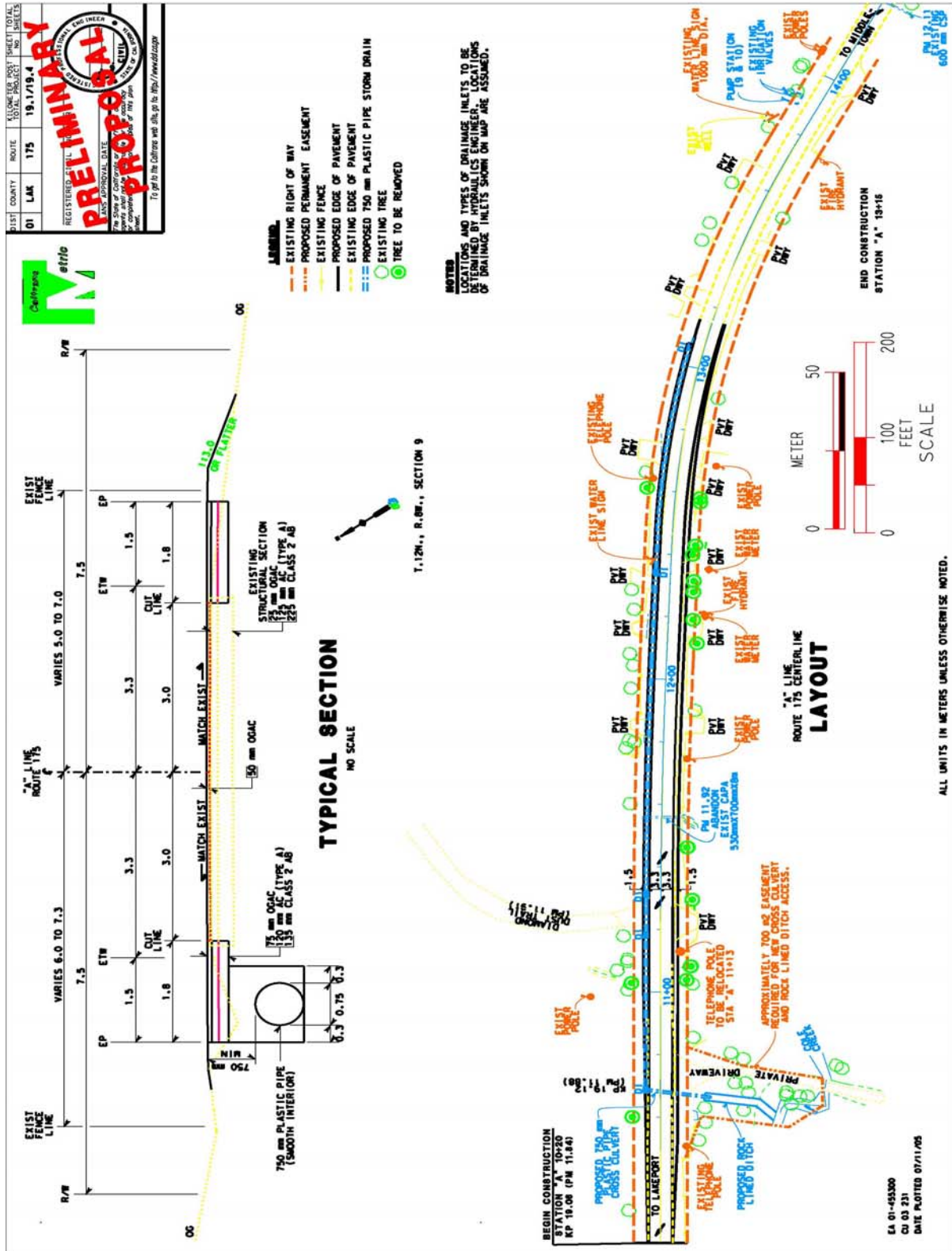
Build Alternative

The project proposes to widen the shoulders along this section of SR-175. Construction activities would consist of minor shoulder widening, drainage construction and relocation. The existing drainage ditch located adjacent to the westbound lane would be filled to grade. Side slopes would be 1:4 of flatter except for a 131 ft. section of highway that may have side slopes of 1:3. Open graded asphalt concrete would be placed as the final pavement surface and restriping would be needed. The project proposes to redirect the highway drainage to a new storm drain system that would be located under the westbound shoulder. The storm drain would outlet to a new cross culvert and ditch near PM 11.8 (KP 19.12). The proposed project would require the acquisition of strips of land from up to three parcels adjacent to SR 175, resulting in a total acquisition of approximately 0.217 ac. Temporary Construction Easements (TCE’s) would be needed from three parcels. The project would not result in any residential relocations.

No improvements are proposed to the highway alignment. (See Figures 1-2 & 1-3)

The increased shoulder width would provide a recovery area for vehicles and better accommodate pedestrians and bicyclists. The estimate for the build alternative, including the estimated cost for right-of-way, is estimated at \$525,000.

Figure 1-2. Typical Section/Layout



No-Build Alternative

A No-Build Alternative is included to provide a baseline for comparison of the impacts of a proposed project. With a No Build Alternative, the roadway shoulders would not be widened and the other associated improvements would not be constructed. It is expected that the collision rate within the project limits would continue to increase as traffic increases, and the narrow shoulders would continue to limit the recovery area for errant vehicles. This alternative would not meet the purpose of the project, which is to improve the safety and operation of the highway.

Alternatives Considered and Withdrawn

It was proposed that shoulder widening and removal of trees adjacent to the traveled way be extended an additional 328 ft. to the east and the storm drain be extended an additional 197 ft. to the east to better address drainage concerns and expand the length of the safety features of the project. Community context sensitivity and right-of-way issues, however, made this alternative not feasible.

1.4 Permits and Approvals Needed

The proposed project would require the following environmental permits/approvals:

Agency	Permit / Approval
U.S. Army Corps of Engineers	Section 404 Nationwide Permit for activities in waters of the U.S. required for modification or improvement
Regional Water Quality Control Board	Section 401 Certification
Calif. Dept. of Fish & Game	Section 1602 Streambed Alteration Agreement for altering flow into a stream

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization and/or Mitigation Measures

This chapter explains the impacts that the project would have on the human, physical and biological environments in the project area. It describes the existing environment that could be affected by the project and potential impacts from each of the alternatives.

As part of the environmental analysis conducted for the project, the following environmental resources were considered, but no potential for adverse impacts to these resources was identified. Consequently, there is no further discussion regarding these resources in this document:

- **Growth** - The purpose of the proposed project is to improve safety. The project would not provide for an increase in traffic capacity (such as additional through-traffic lanes) and would not contribute to growth in the surrounding area.
- **Community Impacts** - The proposed project is located in a rural area north of the community of Cobb, CA, and does not include any work in the community.
- **Geology/Soils/Seismic/Topography** – There are no geotechnical elements in the project that need to be addressed in a Preliminary Geotechnical Report (Caltrans 2005). No impacts related to soil type are anticipated.
- **Paleontology** - The Architectural Study Report (Caltrans 2005) indicated that paleontological studies were not applicable to the proposed project.
- **Threatened and Endangered Species** – The Natural Environment Study (NES, Caltrans 2005) states that the proposed project would not impact any threatened and/or endangered species.
- **Farmland** – There is no farmland within the project area. The land within the project limits is zoned for residential use, therefore there would be no impact to farmlands.
- **Hazardous Waste** - A Site Investigation completed by Caltrans in February 2005 indicated that the project area is free of any hazardous waste (Initial Site Assessment, 2005).
- **Cumulative Impacts** –The proposed project would not contribute to cumulative impacts to resources in the project area. Impacts to oak trees would be minimized through replacement planting within and adjacent to the project area. Impacts to riparian

vegetation would be minimized by replacement planting after completion of roadway construction (NES, VIA; Caltrans 2005).

2.1 Human Environment

Land Use

Affected Environment

Lake County is predominately rural, with agricultural uses and open space accounting for approximately 76% of existing land (General Plan Update Background Report, 2003). The land within the project limits is zoned for residential use.

Impacts

The proposed project would require the acquisition of strips of land from up to three parcels adjacent to SR 175, resulting in a total acquisition of approximately 0.217 ac. Temporary Construction Easements (TCE's) would be needed from three parcels. This acquisition would change land use from the current residential to that of highway use. The project would not result in any residential relocations. The proposed project would provide necessary safety improvements to the highway facility.

Avoidance, Minimization and/or Mitigation Measures

Acquisition of property would be limited to that needed to accommodate the widened shoulder and new right of way for the outlet channel. Property owners would be compensated the fair market value for any land or improvements acquired by the State.

Utilities/Emergency Services

Affected Environment

Within the project area, power poles that support overhead electric and telephone lines are located within the project area. An underground water line crosses the highway at approximately PM 12.

Impacts

To accommodate the proposed shoulder widening, it is expected that one utility pole would need to be relocated prior to actual roadway construction. Since the utilities are located next to the roadway, any impacts to resources would be included with those attributed to the shoulder widening.

Avoidance, Minimization and/or Mitigation Measures

Caltrans would coordinate relocation work with the various utility companies to ensure minimum disruption of service to customers in the area during project construction.

Traffic and Transportation/Pedestrian and Bicycle Facilities

Affected Environment

State Route 175 near the community of Cobb is a two-lane conventional highway and is classified as a Rural Major Collector with 10 ft. paved travel lanes and an average of 0-2 ft. shoulders. SR 175 links Lake County with the Route 101 corridor in Hopland to the west and SR 29 in Middletown to the east. Average Daily Traffic (ADT) within the project limits for 2003 was 670 vehicles, with a Peak Hour of 80 vehicles. This section of SR 175 has no passing lanes, few turnouts and minimal passing opportunities (Environmental Study Request 2004). Pedestrians and bicyclists are currently allowed to use the roadway within the project limits, though there are no official bicycle/pedestrian designations.

Impacts

It is expected that the accident rate within the project limits would decrease after construction of the proposed project, as the widened shoulder would provide room for errant vehicle recovery. This would provide a benefit to local and regional traffic and would improve the movement of goods and services in the area.

The proposed project would improve access for pedestrians and bicycles.

Avoidance, Minimization and/or Mitigation Measures

A Transportation Management Plan has been developed for this project and would be updated during the final project design. This plan identifies that traffic delays are likely during construction; however, at least one lane would remain open at all times. One-way traffic control would be in effect during working hours and two lanes would be available for traffic during non-working hours, including nights, weekends and holidays. In addition, adequate shoulder width would be maintained for bicycle and pedestrian traffic.

All impacted emergency response agencies would be notified in advance of any planned traffic control operations. The Contractor would prepare an emergency response action plan prior to the beginning of construction. This plan would address the facilitation of emergency vehicle access through the construction zone.

Visual/Aesthetics

Regulatory Setting

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities.” [CA Public Resources Code Section 21001(b)]

Affected Environment

The visual character within the project area is mostly rural residences and associated outbuildings surrounded by forest and mountains.

Impacts

The project would not result in substantial impacts to the visual quality of the area. Roadside vegetation such as mature trees, shrubs and grasses would be removed prior to roadway construction. Widened shoulders would improve visibility and site distance for the motorized and non-motorized traveling public, especially for turning on or off the highway from intersections and driveways.

Cultural Resources

Regulatory Setting

Caltrans must comply with federal and state historic preservation laws (summarized below), and archaeological studies conducted pursuant to these statutes are documented in a Historic Property Survey Report (HPSR) prepared by Caltrans. The term “cultural resources” as used in this document refers to both historic and prehistoric archaeological resources.

The proposed project is a federal undertaking subject to 36 CFR Part 800, implementing regulations for Section 106 of the National Historic Preservation Act (NHPA) and would be processed under the Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act (January 1, 2004) (PA). NHPA requires federal agencies, before any action, to identify cultural resources that may qualify as eligible for inclusion in the National Register of Historic Places (NRHP) that may be affected by that action. If significant (i.e., National Register eligible) resources are identified, then federal agencies are directed to take prudent and feasible measures to avoid or reduce adverse impacts to those resources. In addition, the project is subject to state historic preservation laws and regulations set forth

in the California Environmental Quality Act (PRC§21000 et seq.). According to Section 15064.5 of CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. Lead agencies are required to identify any historic resources that may be affected by any undertaking involving state or county lands, funds, or permitting. Furthermore, the significance of such resources that may be affected by the undertaking must be evaluated using the criteria for listing on the California Register of Historical Resources (PRC§5024.1, Title 14 CCR, Section 4852).

Affected Environment

The project is situated in a rural community subdivision. Approximately 14 parcels use private driveways and 32 parcels use Diamond Dust Trail to access Route 175 within the project study limits. Local school buses use Route 175 to pick up and drop off children within the project limits. Children must cross the highway to get to the bus stops. Existing pedestrian crossing facilities include three pedestrian crossing signs.

The highway alignment itself is comprised of gentle hills, flat straight-aways and narrow shoulders. Many sharp curves exist with associated Horizontal Alignment/Advisory Speed signs. The existing roadway is asphalt concrete with two lanes approximately 10.1 ft. wide each and shoulders that vary from 0 – 1.9ft. This mountainous 2-lane highway has a posted speed limit of 55 mph.

New ROW would consist of two parcels 0.113 acre and 0.19 acre in size respectively, while permanent easements would be obtained on a 0.141-acre parcel. Furthermore, temporary construction easements would be acquired on three 0.128 acre, 0.079 acre, and 0.044 acre parcels.

Impacts

A record search was completed at the Northwest Information Center (NWIC) of the California Archaeological Inventory, California State University, Sonoma on February 3, 2005. The record search included documentation of known archaeological sites, prior investigations, historic landmarks, historic markers, as well as any properties listed in the California Register of Historic Places within a 1/2-mile of the project area. Specifically, the following documents and references were examined as part of this search: *National Register of Historic Places* - listed and/or eligible properties (United States Department of Interior [USDI] 1979 and updates); the *California Inventory of Historic Resources* (1976); *California Points of Historical Interest* (State of California 1992); *California Historical Landmarks* (State of California 1996); *Historic Spots in*

California (Hoover et al. 1990); *Directory of Properties in the Historic Properties in the Historic Property Data File for Lake County* (2004).

The maps and files maintained by the NWIC showed that no previous cultural resource surveys have been conducted in the current APE, and no prehistoric or historic sites have been identified. Three studies have been conducted within the project vicinity by Archaeological Services for undisclosed project types (Flaherty 1987, 1989 and 1995). As a result of these studies no cultural resources were identified, although one site, CA-LAK-548, a prehistoric obsidian quarry situated along State Route 175, is located within the boundaries of one of Archaeological Services study areas, but was not relocated (Flaherty 1995). Four additional sites are located within a one-half mile radius of the current project area and include: CA-Lak-1064, a wide scatter of obsidian bifaces and projectile point fragments situated in a small drainage; CA-LAK-1068, a light scatter of obsidian biface tools, knives and other artifacts located on the north bank of Cole Creek; CA-LAK-685, an obsidian quarry running along State Route 175 for approximately one mile; and CA-LAK-1065/H, a multiple component site consisting of a historic ranch house/homestead with outbuildings and structural depressions, along with prehistoric tools and groundstone artifacts. An 1871 GLO plat map of T12N/R8W shows several roads within the project vicinity including: "Old County Road," located approximately one-quarter mile to the west of the project area; and an unnamed road situated one-half mile to the north. In addition, three cabins are located approximately three-quarter mile to the southwest of the APE, and the Rosebaugh house, orchard and field are situated approximately one-quarter mile to the west. No historic landmarks, historic markers or properties listed in the California Register of Historic Places were identified in the project area.

The California Native American Heritage Commission (CalNAHC) was contacted to request a search of the sacred land files for the project area. Although the search failed to yield information on Native American cultural resources located within or adjacent to the project area, the CalNAHC provided a list of individuals and organizations in the Native American community that could provide information about unrecorded sites in the project vicinity. Copies of contact letters are available upon request.

On July 8, 2005, the entire project area was subjected to an intensive pedestrian survey under the guidance of the *Secretary of the Interiors Standard's for the Identification of Historic Properties*, using transects that originated at the southwest corner of the project and proceeded in a generally east-west direction. At that time, the ground surface was

examined for indications of surface or subsurface cultural resources. The general morphological characteristics of the ground surface were inspected for indications of subsurface deposits that may be manifested on the surface, such as the banks of Cole Creek and a roadside drainage ditch. Whenever possible, the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances were examined for artifacts or for indications of buried deposits. Where groundcover was heavy, trowel scrapes were conducted to remove vegetation. No subsurface investigations or artifact collections were undertaken during the pedestrian survey. As a result of the field survey, no cultural resources were identified within the project area.

The majority of the project area has been altered from its natural form largely due to road construction and residential housing. Ground visibility ranged from good to poor, with denser vegetation located on the southern portion of the APE, especially in the area north of Cole Creek. Despite trowel scrapes, no cultural resources were identified although large amounts of naturally occurring obsidian throughout the APE. Even though no surface evidence of archaeological deposits are present in the project area, based on ethnographic settlement patterns, alluvial activities, and known cultural resources within the project vicinity, the area is considered highly sensitive for prehistoric archaeological sites. Gail St. John, Caltrans Principle Architectural Historian determined that the project has no potential to affect adjacent, built-environment resources, and since the entire project would occur within existing Caltrans ROW, and there are no buildings, structures, or objects within the ROW that may contribute to a large resource. No further architectural studies are needed, unless there are changes in the project design.

Avoidance, Minimization and/or Mitigation Measures

It is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in the area until a qualified archaeological can evaluate the nature and significance of the find. Additional surveys would be required if project limits are extended beyond the present study limits.

Although no indications of human remains were identified on the surface, subsurface human remains may become evident during construction activities. Applicable procedures should be followed upon the unanticipated discovery of human remains, in accordance with provisions of State Health and Safety Code, Sections 7052 and 7050.5 and the State Public Resources Code Sections 5097.9 and 5097.99. Sections 7052 and

7050.5 of the State Health and Safety Code define the disturbance of Indian Cemeteries as a felony. The code further requires that construction or excavation is stopped in the vicinity of discovered human remains and the Sheriff and Coroner notified immediately. The Coroner must determine whether the remains are those of a Native American, the Coroner shall contact the California Native American Heritage Commission within 24 hours. Subsequent procedures shall be followed, according to State Public Resources Code Sections 5097.9 and 5097.9, regarding the role of Native American participation.

2.2 Physical Environment

Hydrology and Floodplain

Affected Environment

The project lies in central Lake County within the Cole Creek watershed, which is classified as a primary tributary to Clear Lake. The terrain of the Cole Creek watershed transitions from moderately mountainous in the upper 2/3 of the watershed to rolling foothills and flat valley as it approaches Clear Lake. The project area is located in the upper watershed, approximately 13 miles upstream of Clear Lake, in moderately mountainous terrain with a narrow, flat floodplain adjacent to Cole Creek. The watershed climate is considered temperate, semi-arid, characterized by dry, rainless summers with high daytime temperatures and warm nights. Winters are temperate and wet, with a mean annual precipitation of approximately 25 in/yr in the project vicinity.

Historically, the worst flooding has occurred along the flat, lower portion of the watershed as Cole Creek approaches Clear Lake, rather than in the upper watershed where the project is located. While flooding of Cole Creek may occur in the upper watershed, no formal floodplain studies have been conducted by FEMA. FEMA's Flood Insurance Rate Map (FIRM) #060060 0300 B shows the project location lying within Zone D, defined as "...areas where there are possible but undetermined flood hazards... No analysis of flood hazards has been conducted". Consequently, there are no Base Flood Elevation constraints for this project. There are no flood control facilities in the Cole Creek watershed.

The 2-year, 25-year, and 100-year runoff volumes for the project limits and the Cole Creek watershed, respectively. Results are summarized in Table 1.

Table 1: Summary of Flows

	Area (acres)	Q ₂ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
Project Limits	62	14	18	30	39
Cole Creek Watershed	2619	159	671	907	1130

These flows were used to determine factors affecting storm drain system operation, such as backwater effects from Cole Creek, and self-cleaning velocities in the storm pipes.

Proposed Storm Drain System

The proposed storm drain system would be located in approximately the same location as the existing drainage ditch on the east side of the highway. The system would utilize drop inlets (di's) and Alternative Pipe Culvert (APC) to collect storm water within the project limits and convey it to the west end of the project and across the highway where it would outlet to a rock-lined channel, and ultimately Cole Creek. Pipe diameters vary from 24 in. at the upstream end to 36 in. at the cross culvert. Pipe slopes vary between 0.1% and 0.24%, which would generate self-cleaning velocities for most pipes that meet or exceed the 10.83 ft/s recommended by the Highway Design Manual (HDM sec 838.4). The 35.43 in. sections 3 and 4 would have velocities just under 10.83 ft/s at low flows (i.e. Q₂).

All drop inlets (di's) should be Type GCP with 36 in. 900RX grates, Std. Plans D75B and D77B, respectively. The exceptions are two di's on either side of Diamond Dust Trail, which would require a special design to handle sediment.

Diamond Dust Trail is a steep, unpaved private road that outlets on to SR-175 at the north end of the project. During heavy rains, sediment from the private road washes down onto the highway. Maintenance crews remove 6-8 cubic yards of sediment from the highway each year. In order to capture this sediment without impacting Right of Way, it is proposed to install sediment traps under the shoulder on either side of Diamond Dust. The traps can be constructed using modified Type GT4 drainage inlets with 600RX grates, Std Plans D74A and D74B, respectively. Collected sediment can be cleaned with the Maintenance vactor truck. The depth of the traps would depend on the frequency of the cleaning. Based on preliminary calculations, the depth of the traps need to be 7 ft. below finish grade if the traps are vactored twice a season, and 10 ft. below grade if vactored once a season. The estimated construction cost is \$7,000-\$10,000 for each sediment trap.

After passing through the cross culvert, storm water would be conveyed to Cole Creek via a rock-lined channel. The channel would be approximately 65 ft. long, 1 ft deep and lined with 1.5 ft of rock-facing. The channel should curve north to match the direction of flow of Cole Creek in order to prevent backwater under normal flow conditions.

The storm drain and channel would operate as designed for flows of Q_1 through Q_9 . Flows of Q_{10} and greater would begin to overwhelm the rock-lined channel and generate backwater on the cross culvert. Model results show that the backwater effect ranges from less than 0.49 ft for Q_{10} flows to almost 1.97 ft for Q_{100} flows – potentially enough to back up through the Diamond Dust drop inlets.

Impacts

Existing surface drainage would be redirected to a new storm drain system, which would outlet to Cole Creek. The new system would include sediment traps at the base of Diamond Dust Trail to capture material that washes down during heavy flows. The culvert at PM 11.92 is not functional and should be abandoned or removed. (Hydrology Report, Caltrans 2005).

Avoidance, Minimization and/or Mitigation Measures

Natural and beneficial floodplain values would be preserved and/or restored by implementation of water quality permit conditions. The project would be regulated under Caltrans' Statewide National Pollutant Discharge Elimination System (NPDES) Permit, which includes by reference the Statewide Construction General Permit. To address the potential for temporary erosion and sedimentation impacts due to construction activities, Caltrans' BMPs for sediment control and soil stabilization would be included in the Special Provisions of the construction contract. In addition, a Storm Water Pollution Prevention Plan (SWPPP) would be implemented during construction. Permanent erosion control measures would be applied to new or exposed slopes. The contractor would be required to follow standard procedures to limit the potential for spills and leaks of lubricant, oil, grease and other fluids associated with vehicles and equipment during construction.

Air Quality

Affected Environment

This project is exempt from air quality conformity analysis requirements per Table 2 of 40 Code of Federal Regulations (CFR) 93.126, subsection Safety ("Safety Improvement Program").

In addition, implementation of this project would not increase vehicles operating in cold start mode; it would not increase traffic volumes, nor would it worsen traffic flow, therefore, project level analysis is not required.

Impacts

The proposed project may result in the generation of short-term construction-related air emissions, including fugitive dust and exhaust emissions from construction equipment. Fugitive dust, sometimes referred to as windblown dust or PM₁₀, would be the primary short-term construction impact, which may be generated during excavation, grading, and hauling activities. However, both pallative dust and construction equipment exhaust emissions would be temporary and transitory in nature.

Naturally Occurring Asbestos (NOA) is known to exist in serpentine, a greenish-greasy rock, is found within ultramafic rock. Based on the California Geologic Survey and National Resource Conservation Service soils maps, ultramafic rocks are found in the southern part of Lake County. If NOA is found during construction, Chapter II Rules and regulations of the Lake County Air Quality Management District must be adhered to when handling this material.

Avoidance, Minimization and/or Mitigation Measures

Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction.

The provisions of Section 7-1.01F Air Pollution Control, and Section 10 Dust Control require the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

If NOA is found during construction, Chapter II, Rules and Regulations of the Lake County Air Quality Management District must be adhered to when handling this material.

Noise and Vibration

Affected Environment

This project does not meet the definition of a Type 1 Project. A Type 1 project is defined by 23 CFR 772 as follows: A proposed Federal or Federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or

increases the number of through traffic lanes. This project therefore does not require project level traffic noise analysis.

Impacts

During construction, noise may be generated from the contractors' equipment and vehicles.

Avoidance, Minimization and/or Mitigation Measures

Noise generated during construction would be minimized because the contractor would be required to conform to the provisions of Caltrans Standard Specifications, Section 7-1.01 I, "Sound Control Requirements". This section requires the contractor to comply with all local sound control and noise level rules, regulations and ordinances, which apply to any work performed pursuant to the contract. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler or a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without a muffler.

2.3 Biological Environment

A list of species and habitats potentially occurring within the project vicinity was developed based on information from federal and state resource agencies. The United States Fish and Wildlife Service (USFWS), Sacramento website provided a list of sensitive species for U.S.G.S 7.5-minute Kelseyville Quadrangle (dated 3/21/05). The California Department of Fish and Game Natural Diversity Database (CNDDB) (v 3.0.5 April 8, 2005) was queried for occurrences of listed and other sensitive species in the Kelseyville 7.5-minute USGS quadrangle and the surrounding 8 quadrangles. Another resource used was the California Native Plant Society's "Inventory of Rare and Endangered Plants of California" (2003).

The biological study area includes the footprint of the completed project, and driveway realignments. Additionally the footprint includes the creek several yards upstream (east) and downstream (west) from the location of the proposed ditch.

A field review took place February 3, 2005 with Caren Coonrod, Design Engineer; Laura Lazzaroto, Landscape Architect; Chris Carroll, Environmental Coordinator; Chris Fox, Biologist and Erin Dwyer, Archeologist.

Upon receipt of permission to enter neighboring owners' properties, Chris Fox and Caroline Warren, Caltrans biologists, conducted a field study on May 25, 2005 to assess

biological resources, including potential wetland areas. All plant and animal species encountered were identified to a level sufficient to determine if they qualified as a special status species. All habitats encountered were assessed for their potential to support special status species.

Confirmation on permission to enter properties for surveys was not received until May 16, 2005, so timing was not optimal to identify some early-blooming plants

On August 2, 2005, Caltrans biologists Chris Fox and Encanta Engleby met with Liam Davis (CDFG) at the project site and discussed the permits that would be required as well as oak tree replacement for the project area. The meeting also included a discussion of potential areas in Lake County to compensate for the loss of oaks.

On August 29, 2005 Chris Fox and Encanta Engleby conducted an additional site visit to survey plants and wildlife within the project area, as well as including a thorough survey of Cole Creek, wading up and down in the creek in the project area.

2.4 Animal Species

Affected Environment

Animal species reported to CNDDB on 9 quads surrounding project plus USFWS listed Animal Species that may be affected by projects in the Kelseyville USGS Quadrangle.

Table 2: Regional Wildlife of Concern

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present	Rationale
<i>Selasphorus sasin</i>	Allen's hummingbird	SSC	Wooded or brushy canyons, parks gardens; mountain meadows.	Absent	No habitat in project area.
<i>Falco peregrinus anatum</i>	American peregrine falcon	FD, SE	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large prey populations	Absent	No habitat in project area.
<i>Haliaeetus leucocephalus</i>	Bald Eagle	FT, FPD, SE, SFP	In western North America, nests and roosts in coniferous forests within 1.6 km of a lake, reservoir, stream, or the ocean	Absent	No habitat in project area.
<i>Amphispiza belli belli</i>	Bell's sage sparrow	FSC, SSC	Prefers chaparral habitats dominated by chamise	Absent	No chaparral in project area.
<i>Amphispiza belli belli</i>	Bell's sage sparrow	FSC, SSC	Prefers chaparral habitats dominated by chamise	Absent	No chaparral in project area.

<i>Dubiraphia brunnescens</i>	Brownish dubiraphian riffle beetle	FSC	Occurs among submerged roots on rocky lake shores.	Absent	No suitable habitat.
<i>Syncaris pacifica</i>	California freshwater shrimp	FE	Low gradient streams where riparian cover is moderate to heavy; shallow pools away from main stream flow. Found below 53' elevation in small coastal streams.	Absent	Elevation too high; Cole creek water does not flow into Pacific ocean.
<i>Rana aurora draytoni</i>	California red-legged frog	FT, SSC, SP	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation; may estivate in rodent burrows or cracks during dry periods.	Present	Possible in Cole Creek
<i>Toxostoma redivivum</i>	California thrasher	FSC	It would breed in adjacent oak woodlands and pine-juniper scrub as well as occasionally in parks and gardens, but only if dense cover is available.	Present	Medium
<i>Phalacrocorax auritus</i>	Double-crested Cormorant	SSC	Rocky coastlines, beaches, inland ponds, and lakes; needs open water for foraging, and nests in riparian forests or on protected islands, usually in snags.	Absent	No suitable habitat
<i>Rana boylei</i>	Foothill yellow-legged frog	FSC, SSC, SP	Creeks or rivers in woodlands or forests with rock and gravel substrate and low overhanging vegetation along the edge; usually found near riffles with rocks and sunny banks nearby	Present	Possible – some gravel substrate in Cole Creek
<i>Myotis thysanodes</i>	Fringed myotis bat	FSC	Wide variety of habitats from low desert scrub to high elevation coniferous forests; day and night roosts in caves, mines, trees, buildings, and rock crevices.	Present	Low
<i>Eumops perotis californicus</i>	Greater western mastiff-bat	FSC, SSC	Wide variety of habitats from desert scrub to montane conifer; roosts and breeds in deep, narrow rock crevices, but may also use crevices in trees, buildings and tunnels.	Absent	No suitable habitat in project area.
<i>Melanerpes lewis</i>	Lewis' woodpecker	FSC	Scattered or logged forest, river groves, burns, foothills	Present	Low
<i>Empidonax trailii brewsteri</i>	Little willow flycatcher	FD, SE	Summer resident in wet or moist meadow and montane riparian habitats 2,000 to 8,000 feet in elevation.	Absent	No suitable habitat in project area.
<i>Lanius ludovicianus</i>	Loggerhead shrike	FSC, SSC	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.	Absent	None; no open habitat in project area.
<i>Numenius americanus</i>	Long-billed curlew	SSC	Nests in high-elevation grasslands adjacent to lakes or marshes. During migration and in winter; frequents coastal beaches and mudflats and interior grasslands and agricultural fields.	Absent	None; no habitat in project area.
<i>Myotis evotis</i>	Long-eared myotis bat	FSC	Primarily in high elevation coniferous forests, but also found in mixed hardwood/conifer, high desert, and humid coastal conifer habitats	Present	Low
<i>Myotis volans</i>	Long-legged myotis bat	FSC	Most common in woodlands and forests above 1,220m, but occurs from 0 to 3,355m	Present	Low
<i>Rana aurora aurora</i>	Northern red-legged frog	FSC, SSC, SP	Usually found near ponds or other permanent water bodies with extensive vegetation	Present	Possible near Cole Creek
<i>Strix occidentalis caurina</i>	Northern spotted owl	FT, SSC	Dense old-growth or mature forests dominated by conifers with topped trees or oaks available for nesting crevices	Absent	None; no habitat in project area.

<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle	FSC, SSC, SP	Woodlands, grasslands, and open forests; occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms	Present	High near Cole Creek
<i>Baeolophus inornatus</i>	Oak titmouse	FSLC	Though the bird clearly prefers open oak and pine-oak woodlands, populations have adapted locally to warm, dry environments without oaks, for example, the western juniper woodland in northern California	Present	Low
<i>Pandion haliaetus</i>	Osprey	SSC	Nests in snags, trees, or utility poles near the ocean, large lakes, or rivers with abundant fish populations.	Absent	None; no open habitat in project area.
<i>Corynorhinus townsendii townsendii</i>	Pacific western big-eared bat	FSC, SSC	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings; very sensitive to disturbances and may abandon a roost after one onsite visit.	Absent	no habitat in project area.
<i>Archoplites interruptus</i>	Sacramento Perch	SSC	Prefer warm water. Aquatic vegetation is essential for young. Tolerate wide range of water conditions.	Absent	None; no open habitat in project area.
<i>Agelaius tricolor</i>	Tricolored Blackbird	FSC, SSC	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles and grain fields; habitat must be large enough to support 50 pairs	Absent	None; no habitat in project area.
<i>Chaetura vauxi</i>	Vaux's swift	SSC	Nests in hollow, burned-out tree trunks in large conifers.	Absent	No suitable habitat in project area
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	SE	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley-oak riparian habitats where scrub jays are abundant.	Absent	None; no habitat in project area.
<i>Elanus leucurus</i>	White-tailed kite	SFP	Low foothills or valley areas with valley or live oaks, riparian areas, marshes near open grasslands	Absent	None; no habitat in project area.
<i>Myotis yumanensis</i>	Yuma myotis bat	FSC, SSC	Found in a wide variety of habitats from 0 to 3,355m., uncommon above 2,210m; optimal habitat is open forests and woodlands near water bodies.	Present	Low

Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Delisted (FD), Federal Species of Concern (FSC); Federal Species of Local Concern (FSLC); State Endangered (SE); State Threatened (ST); Fully Protected (SFP); State Species of Special Concern (SSC). Habitat present(P); habitat absent (A).

Several sensitive species have the potential to occur in the general vicinity of the project. None were found during surveys of the project area. These species include:

California Red-legged Frog (*Rana aurora draytonii*) FT/SSC

The U.S. Fish and Wildlife listed California red-legged frog (*Rana aurora draytonii*) as a Federal Threatened species on May 23, 1996. Critical Habitat was proposed for this species but Lake County was not included in the proposal. A Recovery Plan for red-legged frog has been finalized to ensure conservation of the species. Although Lake County was believed to be part of the historical range of the red-legged frog, it is no longer part of its known range (U.S. Fish and Wildlife Service, 2002).

Red-legged frogs inhabit quiet pools of streams, marshes, and occasionally ponds, preferring heavily vegetated shorelines and permanent water. Eggs are deposited in permanent pools attached to emergent vegetation. Frogs may disperse from the breeding habitat to upland woodlands and riparian areas from July through September and during warm rain events and at night.

Cole Creek is a slow-moving stream during the summer, with plenty of vegetation shading the banks. Frogs could also disperse into the adjoining woodlands.

Survey Results

Surveys by Caltrans biologists on May 25, 2005 and August 29, 2005, resulted in no sightings of red-legged frogs, eggs, or tadpoles in the section of Cole Creek near the project limits. No occurrences of red-legged frogs are documented in the CNDDDB (2005) within five miles of the project.

Impacts

A query of the CNDDDB (2005) revealed no occurrences of red-legged frogs in the Kelseyville quadrangle and adjoining quadrangles. No frogs were found in daytime surveys of Cole Creek near the project site. Caltrans has determined that this project would have no adverse effect on the red-legged frog.

Avoidance, Minimization and/or Mitigation Measures

The Migratory Bird Treaty Act (MBTA) protects most native North American birds, their active nests and eggs from disturbance or destruction. To ensure compliance with the MBTA, a pre-construction survey would be conducted to confirm there are no active nests in the project area that might be disturbed by construction. If an active nest is located, Caltrans would coordinate with CDFG and/or USFWS on how to proceed. Work would not proceed until any issues were resolved to the satisfaction of all parties.

Caltrans would avoid and minimize potential impacts to the frog and its habitat to the greatest extent possible during project construction. Most of the work would take place away from the creek. No work would be done in the creek. Construction personnel would be alerted to the possible presence of foothill yellow-legged frogs, and would then be instructed to allow any frogs that appear near construction to clear the area before work can resume.

Northwestern Pond Turtle (*Clemmys marmorata*) FSC/SSC

Northwestern pond turtle is a federal species of concern and a state species of special concern. This species prefers permanent ponds, lakes, streams, and irrigation ditches in a wide variety of habitat types. They require basking sites such as partially submerged logs, rocks, and mats of floating vegetation, or open mud banks.

Survey Results

No northwestern pond turtles or other turtles were found in surveys of the project area. However, according to the California Natural Diversity Data Base (CNDDB), the species has been known from the Kelseyville Quadrangle at the Boggs Lake Preserve, approximately 1.5 miles southwest of the project area. Habitat in the immediate construction area lacks suitable basking sites, but the area cleared for putting in the rock-lined ditch may provide a suitable basking site. Turtles could also migrate overland to construction areas from the creek.

Impacts

Caltrans has determined that there would be no adverse impacts to the northwestern pond turtle from this project. Any turtle individuals that stray onto the project area would be easily spotted and could be removed to safety by construction personnel or the construction liaison.

Avoidance, Minimization and/or Mitigation Measures

To avoid impacts to northwestern pond turtles, Construction personnel would be informed of the possible presence of turtles and would move any turtle individuals that are found in the project area to a safe location.

California Thrasher (*Toxostoma redivivum*) FSC

California thrasher is a federal species of concern. This species is endemic to the coastal and foothills regions of California. It would breed in adjacent oak woodlands and pine-juniper scrub as well as occasionally in parks and gardens, but only if dense cover is available. Its dispersal is very limited. The California thrasher sings exuberantly year-round. The species forms pairs in winter. The female usually lays her clutch in February or March. Both sexes build the nest, hiding it well in dense vegetation.

Survey Results

No California thrashers were found in surveys of the project area. According to the California Natural Diversity Data Base (CNDDB), the species has been not been recorded in the Kelseyville Quadrangle or 8 surrounding quadrangles.

Impacts

Per the federal Migratory Bird Treaty Act, the Contractor would be instructed that migratory birds and their (active) nests, eggs and young, are protected and measures must be implemented to avoid the harassment or take of any birds. Tree and shrub removal should occur from September 1 to April 30 to avoid taking nesting birds. If vegetation removal cannot work within this window, then surveys by the Caltrans biologist would be required prior to the removal of any trees. If nesting birds are present, tree and shrub removal would not be permitted until a Caltrans biologist has given authorization to proceed.

Foothill Yellow-legged Frog (*Rana boylei*) FSC/SSC

Yellow-legged frogs inhabit shallow, slow, gravelly streams and rivers with sunny banks, in forests, chaparral, and woodlands. Breeding occurs from mid March until early June when streams have slowed from winter runoff. Clusters of eggs are attached to the downstream side of submerged rocks. Tadpoles transform in about 15 weeks, from July to September.

Cole Creek is a shallow, slow-moving stream during the summer, with graveled areas found along it. Frogs could also disperse into the adjoining woodlands and into the construction area.

Survey Results

Surveys by Caltrans biologists on May 25, 2005 and August 29, 2005, resulted in no sightings of yellow-legged frogs, eggs, or tadpoles in the section of Cole Creek near the project limits. Although no occurrences of yellow-legged frogs are documented in the CNDDDB (2005) within the Kelseyville Quadrangle, several sightings have been made in adjacent quadrangles.

Impacts

No frogs were found in daytime surveys of Cole Creek near the project site, although pockets of rocky substrate were found along the creek. With the established avoidance measures, Caltrans has determined that there would be no adverse impacts to the foothill yellow-legged frog from this project.

Avoidance, Minimization and/or Mitigation Measures

Caltrans would avoid and minimize potential impacts to the frog and its habitat to the greatest extent possible during project construction. Most of the work would take place away from the creek. No work would be done in the creek. Construction personnel

would be alerted to the possible presence of foothill yellow-legged frogs, and would then be instructed to allow any frogs that appear near construction to clear the area before work can resume.

Lewis' Woodpecker (*Melanerpes lewis*) FSC

Lewis' woodpecker is a federal species of concern. From early May, Lewis's woodpeckers breed in open forests of pine or cottonwood with ground cover, snags, and insects. Ponderosa pine forests are preferred at higher elevations while riparian woodlands dominated by cottonwoods are preferred at lower elevations. The woodpeckers migrate and arrive at their wintering grounds between mid-September to mid-October. Winter sites are usually oak woodlands or commercial orchards and are chosen for available food storage places. In the fall and winter they store food, nuts and grains, in the crevices of bark or cracks in telephone poles or fence posts.

The project area is in oak woodland, so if used by Lewis' woodpecker, it would most likely be found between October and May, and not be nesting in the area.

Survey Results

No Lewis' woodpeckers were found in surveys of the project area. Although several granary trees are in the project area, Lewis' woodpeckers would not use these trees because they do not drill holes, preferring to use existing crevices to store food. According to the California Natural Diversity Data Base (CNDDB), the species has not been recorded in the Kelseyville Quadrangle or eight surrounding quadrangles.

Oak titmouse (*Baeolophus inornatus*) FSLC

Oak titmouse is a federal species of local concern. This species is brown-tinged with a plain face and short crest, and measures 5.75 inches in length. The oak titmouse gives a repeated series of three to seven syllables, each comprised of one low and one high note, while the similar-looking juniper titmouse's song consists of a series of rapid syllables on the same note. It prefers open oak and pine-oak woodlands, although populations have adapted locally to warm, dry environments without oaks. The titmouse nests in mostly natural cavities and sometimes in old woodpecker holes. It also uses artificial boxes. Nests are built with grass, moss, feathers, shredded bark, and other material mostly from mid-March through April.

Survey Results

No oak titmice were found in surveys of the project area. According to the California Natural Diversity Data Base (CNDDB), the species has been not been recorded in the Kelseyville Quadrangle or eight surrounding quadrangles.

Avoidance, Minimization and/or Mitigation Measures

Per the federal Migratory Bird Treaty Act, the Contractor would be instructed that migratory birds and their (active) nests, eggs and young, are protected and measures must be implemented to avoid the harassment or take of any birds. Tree and shrub removal should occur from September 1 to April 30 to avoid taking nesting birds. If vegetation removal cannot work within this window, then surveys by the Caltrans biologist would be required prior to the removal of any trees. If nesting birds are present, tree and shrub removal would not be permitted until a Caltrans biologist has given authorization to proceed.

Myotis Bats

There are four myotis bats that the USFWS has listed as species of concern in the Kelseyville quadrangle.

Fringed Myotis (*Myotis thysanodes*) FSC

The fringed myotis bat is found from coastal region to the Sierra Nevada in California. In California, has been found in mixed deciduous/coniferous forest. The majority of roosts documented in California have been in buildings or mines. However, it has been known to roost in tree hollows, particularly large conifer snags in Oregon and Arizona, and in rock crevices in cliff faces in southern California. No potential roost sites occur in the project area.

Long-Eared Myotis (*Myotis evotis*) FSC

The long-eared myotis bat is found throughout California, higher elevation forests, mixed coniferous/hardwood forests, in high desert, and near sea level with appropriate habitat. Found in mixed hardwood/conifer forest and montane conifer forest in northern California. Roost sites include caves, mines, trees, crevices, buildings, and bridges. The project area was surveyed for roost sites, but none were found.

Long-Legged Myotis (*Myotis volans*) FSC

The long-legged myotis bat is found throughout California. It has been found from coast to high elevation in Sierra Nevada and White Mountains in California. Habitat includes pinyon juniper, Joshua tree woodland, montane coniferous forest habitats, and in forested habitats along the coast. It is relatively rare in the Sierra Nevada. Day roosts are primarily in hollow trees, particularly large diameter snags or live trees with lightning scars. The project area was surveyed for potential roost sites, but none were found.

Yuma Myotis (*Myotis yumaensis*) FSC, SSC

The Yuma myotis bat is found throughout California, from lower elevations up to 8,000 ft in elevation. Breeding occurs predominantly at lower elevations. They are found in a variety of habitats from the coast to mid elevation. This bat is referred to as the "building bat" for using manmade structures, but it is also found in heavily forested settings, and known to roost in trees. They day roosts occur in buildings, trees, mines, caves, bridges, and rock crevices. Night roosts usually associated with buildings, bridges, or other manmade structures. Colonies found inside hollow redwoods in coastal California and in large snags (primarily sugar pine) in northern California. No potential roost sites occur in the project area.

Survey Results

No bats or potential roost sites for any of the four species of myotis were found in surveys of the project area. According to the California Natural Diversity Data Base (CNDDB), none of these species the species has been not been recorded in the Kelseyville Quadrangle or eight surrounding quadrangles.

Impacts

Caltrans has determined that there would be no adverse impacts to these myotis bats from this project.

2.3.2 Plant Species

Affected Environment

The following table shows the plant species reported to CNDDDB on nine quads surrounding project plus plant species from the USFWS list of Endangered and Threatened Species that may be affected by projects in the Kelseyville USGS Quad.

Table 3: Regional Plants of Concern

Scientific Name	Common Name	Status	General Habitat Description (project elev. is approx 700 M)	Bloom Period	Habitat present	Rationale
<i>Arctostaphylos manzanita</i> spp. <i>elegans</i>	Konocti manzanita	CNPS 1B	Chaparral, cismontane woodland, lower montane coniferous forest; Volcanic Soil. 395-1400M	Mar-May	Present	Species found within mile of project area
<i>Arctostaphylos stanfordiana</i> ssp. <i>raichei</i>	Raiche's manzanita	FSC, CNPS 1B	Chaparral, lower montane coniferous forest, openings, rocky, often serpentine soils; 450 - 1000M	Feb-Apr	Present	Habitat present in project limits
<i>Cryptantha clevelandii</i> var. <i>dissita</i>	Serpentine cryptantha	CNPS 1B	Chaparral, serpentine soils	Apr-Jun	Absent	No habitat in project limits
<i>Didymodon norrisii</i>	Norris's beard-moss	FSC, CNPS 12	Cismontane woodland, lower montane coniferous forest. Moss from intermittently mesic sites; on rocks 600-1700M	Anytime - Moss	Present	Potential near creek.
<i>Eriastrum brandegeae</i>	Brandegee's eriastrum	FSC, CNPS 1B	Chaparral, cismontane woodland, volcanic soils; 305-1030M	Apr -Aug	Present	Habitat present in project limits
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	SE, CNPS 1B	Vernal pools and margins of seasonally receding ponds and lakes	Apr-Aug	Absent	No habitat in project area
<i>Hesperolinon adenophyllum</i>	Glandular western flax	FSC, CNPS 1B	Chaparral, cismontane woodland, valley and foothill grassland/serpentine; 150-1315m.	May-Aug	Present	Habitat present in project limits
<i>Horkelia bolanderi</i>	Bolander's horkelia	FSC, CNPS 1B	Chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland/edges, vernal mesic areas 450-1100m	June-Aug	Present	Habitat present in project limits
<i>Layia septentrionalis</i>	Colusa layia	FSC, CNPS 1B	Chaparral, cismontane woodland, valley and foothill grassland/sandy, serpentine; 100-1095m.	Apr-May	Present	Habitat present in project limits
<i>Legenere limosa</i>	Legenere	FSC, CNPS 1B	Vernal pools; 1-880 M	April-June	Absent	No vernal pools in project area
<i>Lupinus sericatus</i>	Cobb Mtn. lupine	CNPS 1B	Broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest; 275-1525M	Mar-Jun	Present	Habitat present in project limits
<i>Navarretia leucocephala</i> ssp. <i>pauciflora</i>	Few-flowered navarretia	FE, ST, CNPS 1B	Vernal pools, volcanic ash flows	May-Jun	Absent	No vernal pools in project area
<i>Navarretia leucocephala</i> ssp. <i>pliantha</i>	Many-flowered navarretia	FE, FE, CNPS 1B	Vernal pools, volcanic ash flows	May-Jun	Absent	No vernal pools in project area
<i>Orcuttia tenuis</i>	Slender Orcutt grass	FT, SE, CNPS 1B	Vernal pools 35-1760 m.	May - Oct	Absent	No vernal pools in project area

<i>Plagiobothrys lithocaryus</i>	Mayacamas popcorn-flower	CNPS 1A	Chaparral, Cismontane woodland, Valley and foothill grassland / mesic; 300 - 450 M.	Apr-May	Absent	Habitat present but extirpated in Lake County
<i>Streptanthus breweri</i> var. <i>hesperidis</i>	Green jewel-flower	FSC, CNPS 1B	Openings in chaparral or woodland; serpentine, rocky sites. 13 -760M.	May-July	Present	Habitat present in project limits
<i>Tracyina rostrata</i>	Beaked tracyina	CNPS 1B	Cismontane woodland, valley and foothill grassland. 90-520 M	May-Jun	Absent	Elevation too high for plant

Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); State Species of Special Concern (SSC); California Native Plant Society (CNPS) Listed. Habitat present(P); habitat absent (A).

There are a number of potential plant species with special status that may occur in the project area. Because the area is residential, much of the area has been paved or replanted with non-native species. However, there are still some areas in the project locale that have native vegetation. Plant surveys were conducted in May and August. No special status plants were found during surveys.

Konocti manzanita (*Arctostaphylos manzanita* spp *elegans*) CNPS 1B

Konocti manzanita is found in chaparral and foothill woodland at elevations between 1968 and 4593 ft. There are 41 reported (CNDDDB) occurrences of Konocti manzanita within 5 miles of the project area. However, all the dates for those records occur before 1952. The closest record is approximately 1 km NW of the project area, recorded in 1934. There is manzanita in the project area, at the edge of the parking area at the base of Diamond Dust Trail, however it could not be identified to species, and working through the key, Konocti manzanita cannot be eliminated. However, because no manzanita would be removed during construction, and none would be immediately adjacent to the newly widened shoulder, there would be no impact to this species.

Raiche's manzanita (*Arctostaphylos stanfordiana* ssp *raichei*) FSC, CNPS 1B

Raiche's manzanita is found in chaparral and lower montane coniferous forest openings, in rocky, often serpentine soils. There are no occurrences reported in CNDDDB of Raiche's manzanita within 5 miles of the project area. However, CNPS reports that there is botanical literature documenting this plant in Lake County USDA NRCS-National Plants Data Center. Although the manzanita in the project area could not be identified to species, Raiche's manzanita could be eliminated working through the key. This species is not present in the project area.

Norris's beard-moss (*Didymodon norrisii*) FSC, CNPS 2

Norris's beard-moss is a reddish-brown bryophyte with stems 1 – 1.5 cm found on rocks in intermittently mesic sites. It is native to California, and has 4 documented occurrences in Humboldt, Lake, Madera, and Tuolumne Counties (one observation in each county). There are no occurrences reported in CNDDDB of Norris's beard-moss within 5 miles of the project area. The closest record is approximately 10 miles to the northwest, located at Manning Creek, SR 175, about 4 miles west of Lakeport. A walk up and down Cole Creek in the vicinity near the project did not find this species.

Brandegee's eriastrum (*Eriastrum brandeae*) FSC, CNPS 1B

Brandegee's eriastrum occurs in chaparral and foothill woodland in the north and central inner coast ranges. It is an annual plant, 5 – 30 cm tall, found in volcanic soils at elevations from 800 to 1000 m. The closest occurrence reported in CNDDDB of Brandegee's eriastrum is approximately 4 miles to the south. There are also occurrences near Kelsey Creek about 4.5 miles to the northwest along 175. It was not found during surveys in the project area.

Glandular western flax (*Hesperolinon adenophyllum*) FSC, CNPS 1B

Glandular western flax occurs in chaparral and foothill woodland in the north coast ranges. It is an annual plant, 10-50 cm tall, found at elevations from 150-1315 m. There are 8 occurrences reported in CNDDDB of glandular western flax in the Kelseyville and surrounding quadrangles. All of these are in serpentine chaparral. The closest occurrences are approximately 2 miles away. This plant was not found during surveys in the project area.

Bolander's Horkelia (*Horkelia bolanderi*) FSC, CNPS 1B

Bolander's horkelia occurs in a variety of habitats in the inner north coast ranges. It is a perennial plant, 10-30 cm tall, found at elevations from 450 - 1100 m. The closest reported occurrence of Bolander's horkelia in CNDDDB is approximately one mile away, at Boggs Lake. This species was not found during plant surveys in the project area.

Colusa layia (*Layia septentrionalis*) FSC, CNPS 1B

Colusa layia occurs in chaparral, cismontane woodland, and valley and foothill grassland. It has been recorded in Colusa, Glenn, Lake, Mendocino, Napa, Sonoma, Sutter, Tehama, and Yolo Counties. It is an annual plant, found at elevations from 100 - 1095 m. There are no occurrences reported in CNDDDB of Colusa layia within 5 miles of

the project area. However, there is a reported occurrence of *Colusa layia* in CNDDDB approximately ten miles away, south of Lakeport. This species was not found during plant surveys in the project area.

Cobb Mt. Lupine (*Lupinus sericatus*) CNPS 1B

Cobb Mt. lupine is a perennial plant that occurs in chaparral and cismontane woodland, often on serpentinite or rocky soils from 130-760 m. The closest occurrences reported in CNDDDB of Cobb Mt. lupine are near Cobb Mountain, which is just over five miles south of the project. This species was not found during plant surveys in the project area.

Green jewel-flower (*Streptanthus breweri* var. *hesperidis*) FSC, CNPS 1B

Green jewel-flower is an annual plant that occurs in chaparral, cismontane woodland, broadleaved upland forest, and lower montane coniferous forest at elevations from 275 - 1525 meters. There are no occurrences reported in CNDDDB of green jewel-flower within 5 miles of the project area. However, there is a reported occurrence of green jewel-flower in CNDDDB approximately ten miles away, near Lakeport. This species was not found during plant surveys in the project area.

2.3.3 Natural Communities of Special Concern

Affected Environment

According to the California Wildlife Habitat Relationships System (CDFG, 1988) the natural community in this area would be considered Coastal Oak Woodland. "Coastal oak woodlands are extremely variable. The overstory consists of deciduous and evergreen hardwoods (mostly oaks 4.5-21 m (15 to 70 ft) tall) sometimes mixed with scattered conifers. In mesic sites, the trees are dense and form a closed canopy. In drier sites, the trees are widely spaced, forming an open woodland or savannah. The understory is equally variable. In some instances, it is composed of shrubs from adjacent chaparral or coastal scrub, which forms a dense, almost impenetrable understory. More commonly, shrubs are scattered under and between trees. Where trees form a closed canopy, the understory varies from a lush cover of shade-tolerant shrubs, ferns, and herbs to sparse cover with a thick carpet of litter. When trees are scattered and form open woodland, the understory is grassland, sometimes with scattered shrubs. In the North Coast Range south to Sonoma County, Oregon white oak is the common deciduous white oak. Under favorable moisture conditions, California black oak,

canyon live oak, madrone and interior live oak are often found mixed with Oregon white oak. Coastal oak woodlands provide habitat for a variety of wildlife species”.

Survey Results

The oak woodland in this area consists mostly of black oaks (*Quercus kelloggii*), valley oaks (*Quercus lobata*), and foothill pine (*Pinus sabiniana*). Scrub oaks, and other shrubs provide an understory in the uncleared areas. Caltrans proposes to remove 16 trees (7 black oak, 2 valley oak and 6 foothill pine) for the shoulder widening. All of these trees are greater than 4 inches in diameter. The area between the existing pavement and Caltrans Right of Way in the project is 0.26 ha (0.64 acre). This would conservatively represent the area of oak woodland being removed.

Impacts

The trees being taken out are “buffer” trees for the oak woodland, and would decrease the amount of oak woodland in the area for wildlife to use.

Avoidance, Minimization and/or Mitigation Measures

Only those trees necessary to widen the shoulder, and those that pose a danger near the roadway if sufficient amount of their roots are severed, are planned for removal. Although these are only a fraction of the oak trees in the area, these trees are considered as buffer trees to the oak woodland. To comply with the intent of Senate Resolution 17 regarding impacts to oak woodlands, Caltrans would dedicate funds toward the purchase of 0.64 ac of oak woodland habitat.

2.3.4 Wetlands and Other Waters

Three potential wetland areas were examined to determine if they were jurisdictional wetlands. Both the existing highway ditch to be filled in and the area where the rock lined ditch is proposed are low lying areas often inundated with water during the winter. Another area considered is the culvert outflow area at post mile 11.92 where the culvert is being abandoned.

Impacts

A negative determination for jurisdictional wetlands at the culvert outflow area was made based on the size and isolation of the wetland area. The predominant vegetation does consist of wetland plants, and the area is inundated for several months into the growing season, but it is a small, isolated area. There is no outflow into the creek. The wetland area was clearly created by roadside runoff directed through the culvert. As an isolated wetland, this does not come under USACE jurisdiction.

The existing highway ditch conveys roadside and lawn runoff into the existing culvert, which, as already states, drains into a small, isolated, non-jurisdictional wetland. As an isolated potential wetland, the ditch along the westbound lane does not come under USACE jurisdiction.

A negative determination for jurisdictional wetlands near the creek was made based on the absence of hydrology as the area dries up within several days after rains. However, as there is a hydrologic connection to the creek on occasion during high rains, a positive determination for “other waters of the U.S.” in the project area was made for the low area where the proposed rock lined ditch would connect with Cole Creek.

Existing Streambed (Post Mile 11.88)

A positive determination for waters of the U.S. in the project area was made based on the presence of bed and bank where the proposed rock lined ditch would connect with Cole Creek. A natural bank and the presence of riparian vegetation defined the lateral limit of the streambed.

Avoidance, Minimization and/or Mitigation Measures

Construction activities would result in the temporary impact of up to 702.2 square feet (0.016 acre) of jurisdictional waters and permanently impact 287.4 square feet (.007 acres) of waters of the US where the rock-lined ditch will be placed. Caltrans Best Management Practices will be used to avoid impacts to Cole Creek.

The project would require a USACE Nationwide Permit #14 for activities in waters of the U.S. required for modification or improvement of linear transportation projects. An associated State Water Resource Control Board’s (SWRCB) water quality (401) certification would also be required.

The CDFG requires a Streambed Alteration Agreement (1602) for altering flow into a stream.

Chapter 3 Comments and Coordination

Agency consultation and public participation for this project have been accomplished through a variety of methods, including project development team meetings, interagency coordination meetings, a public workshop, and written correspondence. This chapter summarizes the results of Caltrans' efforts to fully identify, address and resolve project-related issues through early and continuing coordination. Copies of pertinent correspondence are included at the end of this chapter.

Public Outreach

A public open house was held on December 16, 2004 in the Multi-Purpose Room of the Middletown Unified School District in Cobb. In attendance was one member of the nearby community and Caltrans representatives. No comments were received.

Tribal Coordination

The California Native American Heritage Commission (CalNAHC) was contacted to request a search of the sacred land files for the project area. Although the search failed to yield information on Native American cultural resources located within or adjacent to the project area, the CalNAHC provided a list of individuals and organizations in the Native American community that could provide information about unrecorded sites in the project vicinity.

Copies of contact letters are available upon request.

Resource Agency Coordination

The CDFG Central Coast Region and the United State Fish & Wildlife Service were contacted for information on sensitive species, including oak woodland, and any potential impacts to Cole Creek.

Chapter 4 List of Preparers

The following Caltrans North Region staff contributed to the preparation of this Initial Study:

Bob Baker, Senior Engineering Geologist. Contribution: Geotech Study

Susan D. Bauer, Senior Environmental Planner. Contribution: Environmental Branch Chief

Christopher Carroll, Associate Environmental Planner. Contribution: Environmental Study Coordinator and Document Writer

Caren Coonrod/Steven Blair/Scott Morris, Transportation Engineer. Contribution: Project Engineer

Erin Dwyer, Associate Environmental Planner (Archaeology). Contribution: Historic Property Survey Report (HPSR)

Chris Fox, Associate Environmental Planner (Natural Science). Contribution: Natural Environment Study (NES), Wetland Delineation

Dawn Friend, Civil Engineer. Contribution: Hydraulics Study

Dwayne Grandy, Transportation Engineer. Contribution: Initial Site Assessment (Hazardous Waste)

Laura Lazzaroto, Landscape Associate. Contribution: Visual Impact Analysis Report

Dennis McBride, Senior Transportation Engineer. Contribution: Senior Design Engineer.

David Melendrez, Transportation Engineer. Contribution: Water Quality and Storm Water Reports

Dina Noel, Senior Transportation Engineer. Contribution: Project Manager

Gail St. John, Associate Environmental Planner (Architectural Historian)
Contribution: Historic Architecture Review

Sharon Tang, Transportation Engineer. Contribution: Air Quality and Noise Reports

Caroline Warren, Associate Environmental Planner (Natural Science). Contribution:
Wetland Delineation, NES (Plant Survey).

Appendix A CEQA Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

The California Environmental Quality Act requires that environmental documents determine significant or potentially significant impacts. In many cases, background studies performed in connection with the project indicate no impacts. A mark in the “no impact” column of the checklist reflects this determination. Any needed explanation of that determination is provided at the beginning of Chapter 2.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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AESTHETICS - Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

“No Impact” determinations in this section are based on the Visual Impact Analysis, July 2005.

AGRICULTURE RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on field reviews.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentration? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the Air Quality Report, June 2005.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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BIOLOGICAL RESOURCES - Would the project:

a) Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the Natural Environmental Study (NES), September, 2005.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the Natural Environmental Study (NES), September, 2005.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

“No Impact” determinations in this section are based on the Natural Environment Study, September 2005.

COMMUNITY RESOURCES - Would the project:

a) Cause disruption of orderly planned development?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Be inconsistent with a Coastal Zone Management Plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Affect lifestyles or neighborhood character or stability?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Physically divide an established community?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

e) Affect minority, low-income, elderly, disabled, transit-dependent, or other specific interest group?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Affect employment, industry, or commerce, or require the displacement of businesses or farms?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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g) Affect property values or the local tax base?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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h) Affect any community facilities (including medical, educational, scientific, or religious institutions, ceremonial sites or sacred shrines?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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i) Result in alterations to waterborne, rail, or air traffic?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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j) Support large commercial or residential development?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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k) Affect wild or scenic rivers or natural landmarks?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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l) Result in substantial impacts associated with construction activities (e.g., noise, dust, temporary drainage, traffic detours, and temporary access, etc.)?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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“No Impact” determinations in this section are based on review of the Lake County General Plan (1981), the Environmental Study Request attachments; field reviews of the project area, and Caltrans’ Standard Special Provisions for construction activities.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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CULTURAL RESOURCES - Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the Architectural Study Report, September 2005.

GEOLOGY AND SOILS - Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the Preliminary Geotechnical Report, January 2005.

HAZARDS AND HAZARDOUS MATERIALS -

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the Initial Site Assessment, February 2005.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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HYDROLOGY AND WATER QUALITY - Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area any structures that would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the; Hydrology Report, August 2005; and the Water Quality/Storm Water report, February 2005.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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LAND USE AND PLANNING - Would the project:

a) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Conflict with any applicable habitat conservation plan or natural community conservation plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on review of the Lake County General Plan (1981) and the General Plan Update (2003).

MINERAL RESOURCES - Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based the Preliminary Geotechnical Report, January 2005.

NOISE - Would the project:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the Noise Report, June 2005.

POPULATION AND HOUSING - Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the scope and location of the project.

PUBLIC SERVICES -

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Police protection?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Schools?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Parks?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Other public facilities?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the scope and location of the project.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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RECREATION -

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the scope and location of the project.

TRANSPORTATION/TRAFFIC - Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incomplete uses (e.g., farm equipment)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Result in inadequate emergency access?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Result in inadequate parking capacity?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the Environmental Study Request, December 2004; Traffic Report, May 2005 and review of the Lake County General Plan (1981) and General Plan Update (2003).

UTILITY AND SERVICE SYSTEMS - Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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facilities, the construction of which could cause significant environmental effects?

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Result in determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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g) Comply with federal, state, and local statutes and regulations related to solid waste?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the scope of the project and the Water Quality/Storm Water Report, February 2005.

MANDATORY FINDINGS OF SIGNIFICANCE -

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, or cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?



<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Appendix B Title VI Policy Statement

<small>STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY</small>	<small>ARNOLD SCHWARZENEGGER, Governor</small>
DEPARTMENT OF TRANSPORTATION OFFICE OF THE DIRECTOR 1120 N STREET P. O. BOX 942873 SACRAMENTO, CA 94273-0001 PHONE (916) 654-5266 FAX (916) 654-6608 TTY (916) 653-4086	 <i>Flex your power! Be energy efficient!</i>
January 14, 2005	
TITLE VI POLICY STATEMENT	
<p>The California Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.</p>	
 WILL KEMPTON Director	

Appendix C Minimization and/or Mitigation Summary

1. Avoidance / minimization measures:

Cultural Resources

It is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in the area until a qualified archaeological can evaluate the nature and significance of the find. Additional surveys would be required if project limits are extended beyond the present study limits.

Although no indications of human remains were identified on the surface, subsurface human remains may become evident during construction activities. Applicable procedures should be followed upon the unanticipated discovery of human remains, in accordance with provisions of State Health and Safety Code, Sections 7052 and 7050.5 and the State Public Resources Code Sections 5097.9 and 5097.99. Sections 7052 and 7050.5 of the State Health and Safety Code define the disturbance of Indian Cemeteries as a felony. The code further requires that construction or excavation is stopped in the vicinity of discovered human remains and the Sheriff and Coroner notified immediately. The Coroner must determine whether the remains are those of a Native American, the Coroner shall contact the California Native American Heritage Commission within 24 hours. Subsequent procedures shall be followed, according to State Public Resources Code Sections 5097.9 and 5097.9, regarding the role of Native American participation.

Biological Resources

Tree removal should occur outside the breeding season for migratory birds, which in this area is March 1-August 31.

A California Department of Fish and Game 1602 Streambed Alteration Agreement would be required.

The project would require a U.S. Army Corps of Engineers (USACE) Nationwide Permit # 14 for activities in waters of the U.S. required for modification or improvement of linear transportation projects. An associated State Water Resource Control Board's (SWRCB) water quality (401) certification would also be required.

Caltrans would avoid and minimize potential impacts to sensitive frog and turtle species and their habitat to the greatest extent possible during project construction. Most of the work would take place away from the creek. No equipment would enter the creek. Construction personnel would be alerted to the possible presence of foothill yellow-legged frogs, California red-legged frogs and northwestern pond turtles, and would be instructed to allow any frogs or turtles that appear near construction to clear the area.

Any exposed soil resulting from project related disturbance, particularly near the creek, would be re-planted with local native species to avoid dispersal or introduction of noxious weeds as well as for erosion control. Since this area is well shaded by overstory trees, shade-tolerant species should be planted. Suggested species include snowberry (*Symphocarpus sp.*) and California blackberry (*Rubus ursinus*). Mulch would be pine needles or wood chips.

Per the federal Migratory Bird Treaty Act, the Contractor would be instructed that migratory birds and their (active) nests, eggs and young, are protected and measures must be implemented to avoid the harassment or take of any birds. Tree and shrub removal should occur from September 1 to April 30 to avoid taking nesting birds. If vegetation removal cannot work within this window, then surveys by the Caltrans biologist would be required prior to the removal of any trees. If nesting birds are present, tree and shrub removal would not be permitted until a Caltrans biologist has given authorization to proceed.

Land Use

Acquisition of property would be limited to that needed to accommodate the widened shoulder and new right of way. Property owners would be compensated the fair market value for any land or improvements acquired by the State.

Traffic/Transportation

A Traffic Management Plan would be implemented to minimize impacts to through traffic during construction.

All impacted emergency response agencies would be notified in advance of any planned traffic control operations. The Contractor would prepare an emergency response action plan prior to the beginning of construction. This plan would address the facilitation of emergency vehicle access through the construction zone.

Hydrology/Floodplain

Natural and beneficial floodplain values would be preserved and/or restored by implementation of water quality permit conditions. The project would be regulated under Caltrans' Statewide National Pollutant Discharge Elimination System (NPDES) Permit, which includes by reference the Statewide Construction General Permit. To address the potential for temporary erosion and sedimentation impacts due to construction activities, Caltrans' BMPs for sediment control and soil stabilization would be included in the Special Provisions of the construction contract. In addition, a Storm Water Pollution Prevention Plan (SWPPP) would be implemented during construction. Permanent erosion control measures would be applied to new or exposed slopes. The contractor would be required to follow standard procedures to limit the potential for spills and leaks of lubricant, oil, grease and other fluids associated with vehicles and equipment during construction.

Air Quality

Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction.

The provisions of Section 7-1.01F Air Pollution Control, and Section 10 Dust Control require the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

If NOA were found during construction, Chapter II, Rules and Regulations of the Lake County Air Quality Management District would be adhered to when handling this material.

Noise and Vibration

Noise generated during construction is regulated by the provisions of Caltrans' Standard Specifications, Section 7-1.01 I, "Sound Control Requirements". This section requires the contractor to comply with all local sound control and noise level rules, regulations and ordinances, which apply to any work performed pursuant to the contract. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler or a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without a muffler.

Utilities

Caltrans would coordinate relocation work with the various utility companies to ensure minimum disruption of service to customers in the area during project construction.

Oak woodland

To comply with the intent of Senate Resolution 17, Caltrans would dedicate funds toward the purchase of 0.64 ac of oak woodland habitat to compensate for impacts from the proposed project.

Appendix D List of Technical Studies

To assist in the identification and assessment of potential environmental impacts of the proposed project, Caltrans staff prepared the following technical reports:

Air Quality Report

Floodplain Report

Preliminary Geotechnical Report

Historic Property Survey Report

Hydrology Report

Initial Site Assessment (Hazardous Waste)

Noise Report

Natural Environment Study

Project Study Report

Visual Impact Assessment

Water Quality/Storm Water Report

Wetland Delineation Report

Copies of these reports are available for review at the Caltrans District 3-North Region Environmental Division, Office of Environmental Management at 703 B Street, Marysville, CA 95901.

Appendix E Public Review Comments

Comments received during public/agency review of this document, and the associated responses, would be included in this Appendix for the final document.